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THE JOURNAL OF SCHOOL HEALTH

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VOL. VII OCTOBER, 1937 No. 8

ADMINISTRATIVE PROCEDURES IN HEALTH EDUCATION

ALLEN G. IRELAND, M.D., *Director of Physical and Health Education, State Department of Public Instruction, Trenton, New Jersey*

Knowing the breadth of this subject, the reader group will understand that full treatment is not possible. To enumerate the procedures would be merely a cold rehearsal of familiar activities, so I have tried instead to formulate certain supporting principles into a series of generalizations.

In scope, the field is limited to the public school, and the treatment to the point of view of the administrator.

1. Public education today properly embraces individual and public health.

The obligation is no longer an issue. The reasons are well known. But the spirit and the manner of its acceptance conditions the extent and the quality of all that may be attempted.

2. That organization of the school, of its several activities, and of the pupils which best protects and promotes health is an administrative responsibility.

Before an adequate health program is possible and before procedures can properly be established, this principle must be recognized. It refers to the executive branch of public education, for, administratively, health education differs in no respect from other school functions or major departments. Although duties may and should be delegated, the ultimate responsibility rests with the administrative head.

3. Health can be defined.

It seems logical to suggest that every individual or group engaged in developing or promoting a school health program should regard the satisfactory definition of health and its several aspects as the first step. Subsequently, the interpretation should be painstakingly extended to the entire personnel of the school system. It should be accompanied by examples in order to bring out clearly any special role to be played by individuals.

4. The school plant and it maintenance is a factor in health education.

The school building should exemplify the best in hygenic and sanitary practices, not only for health reasons but for the example set and the effect upon the pupil's response and attitude.

Reference is here made to all parts of the school including the lunchroom and kitchen, laboratories and sewing rooms, library and study hall, gymnasium and accessory rooms, swimming pool, classrooms, corridors, and so forth.

5. The organization and operation of the school has significant bearing upon health.

A lengthy list of familiar factors and influences could be included here. To

illustrate: length and number of periods; length of school day; length, number, and placement of recesses or other chances for relaxation; the arrangement of subjects; seating; the amount of freedom permitted; and so forth.

6. Organization for health is essential.

This refers to the necessity of organizing for program development, promotion, and continuous division. It is a matter of personnel organization. The ultimate administrative responsibility has been fixed, but we need operating machinery. It may take one of several forms or a variety of combinations. These forms are the faculty council, the teacher's committee, the health coordinator plan, or the department.

7. A basic program, graded courses of study, and objectives are essentials.

A definite, planned program is held to be an absolute necessity if school health work is to justify itself in terms of health, physical, and educational results, or if it would attain equal standing with other major departments of the school.

Failure to establish purposeful and valid aims and objectives is so commonly observed as to be rated one of the outstanding deficiencies in both health education and physical education.

Aims are guides to the direction education shall take. In that sense they are standards, serving as the bases for program development and the selection of objectives. They express general purposes, larger aspects, and remote attainments.

Aims, together with principles, constitute the foundation of the program-structure. Without them, it would be difficult to justify health and physical education in the curriculum or as a department. Indeed, it could be said that a program does not exist.

8. The school personnel must be informed, skilled, and interested, and, through its individual members, it must exemplify sound health and healthful practices.

To be successful in health teaching, the teacher must believe in health both for himself and for his pupils, and he must constantly exemplify what he teaches, for the inspiration of personal example, whether it be a matter of dress, carriage, neatness, voice, or habits, is far-reaching in its effect upon children. The teacher who is healthy, mentally and physically, teaches health by example. In fact, methods are of less importance than the resourcefulness and the personality of the teacher using them and the spirit which he puts into his teaching.

9. Primarily, responsibility for child health and welfare rests in the home.

Since most influences for good or bad health occur out of school, it becomes a further obligation of the school to enlighten parents as to school aims and procedures in order to secure the maximum in home cooperation.

10. Given many elements, the effectiveness of administration depends upon the degree of coordination achieved.

Either directly or by inference, mention has been made or will be made of

pupils, parents, and teachers; of specialists and custodians; of facilities and equipment; of programs and activities. To cement these into a whole, into a high degree of integration is perhaps the chief function of administration.

11. The time element is important.

We accept the time element as an essential. But arbitrarily to establish standards presents difficulties. To be practical, time apportionment must parallel program scope, pupil needs, teacher efficiency, available facilities, and objectives. Thus, for an indeterminate period, or at least until we achieve a universally acceptable program and a common philosophy, standards for time allotment reside in local needs.

Moreover, I refrain from re-stating old assertions such as a daily fifteen minute period, one hour a week, and so forth. These demands were guesses. And further we have been saying that health education should permeate the school and curriculum. If that is desirable, it will not suffice to set off blocks of time as standards for the ease in which they are attained tends to stultify further effort.

In the case of physical education I have more assurance that we safely demand 30 to 45 minutes daily in elementary schools and a unit period daily in secondary schools, although personnel and facilities are still conditioning factors.

12. Teachers need graded courses of study.

Textbooks are not sufficient, neither is a general course of study satisfactory. A teacher needs the specific guidance and the interpretations which a course of study gives when it is scientifically grounded, painstakingly prepared, and appropriately weighted to the needs and interests of a specific group.

13. Pupils' needs have basic significance in school health work.

Several problems are embraced in this generalization. We face immediately the necessity for determining what needs exist, their number, and their degrees of importance. We think also, among other procedures, of home cooperation, pupil load and programming, course of study development, corrective measures, and classification for physical education.

To determine needs, we are making use of observation in the classroom, parent's reports, history-taking, examinations, inspections, tests, pupil's complaints, individual conferences, long-term observation, scholastic records, home visiting, surveys, and questionnaires.

This involves the cooperation of pupils, parents, teachers, teacher-specialists, physicians, dentists, psychiatrists, psychologists, visiting-teachers, sociologists, nurses, and attendance officers.

At several points we are decidedly weak, probably because we have not extended the horizon much beyond the concept of disease prevention. We need to be conscious of the underlyng function of all public education, namely—the perpetuation of society on increasingly higher planes of living. We need also to be aware that health education may figure prominently as a measure of economy in all educational procedures.

Pupil needs should be a primary consideration in the development of both the general program and the graded courses of study. Certain deficiencies become important data in the hands of the teacher. They may explain scholastic, physical, mental or social failure, and they may be the needed criteria for program adjustments and assignments. They also have significance in guidance and the selection of vocations.

Nowhere in the program does the principle of coordination mentioned above have greater bearing upon effective administration.

In physical education, pupils could be classified into groups according to bases such as the following:

a. Obesity
b. Malnutrition
c. Functional postural defects
d. Orthopedic conditions of organic origin
e. Poor coordination
f. Neuroses, fatigue, overwork
g. Personality and social maladjustment
h. Physical under-development
i. Special class membership
j. Physically normal

Probably no classification is needed in the primary grades. A simple plan will suffice for grades four to seven. In the junior and the senior high schools, classification may vary in degree according to program objectives, general policies, facilities, and staff.

The bases of classification may be one or any combination of the following:

a. Grade or class year
b. Chronological age
c. Physiological age
d. Health examination findings
e. Motorabilty test
f. Physical efficiency test
g. Election by pupil according to interest
h. Height-weight-age coefficient

14. Certain measures for the prevention and control of communicable diseases are peculiarly suited to school conditions.

A listing of the usual procedures is not necessary. It is more important to stress the need of a strong, inflexible administration of those procedures. Leniency, exceptions, and negligence are too frequently observed. Every person in the school organization has a part to play, and where disease is concerned, the most insignificant function may on occasion assume great importance. Every person should be informed of his part, indeed, he should be drilled in the performance of it.

The control measures themselves may well serve as educative situations. To that end, pupils should be encouraged to study them and to participate

in their operation, to formulate rules, and to reflect upon the social aspect of indvidual responsibility.

15. Teaching for health is one major purpose of follow-up services.

Detection is merely a step. Results, in terms of correction and education, accrue from our use of the findings. Several methods are being tried, but the weakness rests in a tendency to stop or to be satisfied with correction. The important point is to utilize to the fullest extent the educative situations represented by examinations, inspections, tests, conferences, and so on. We should come to regard the finding of a defect or any abnormal condition of health as the time when a specific phase of learning begins, for both the individual pupil and his parents.

16. Most corrective measures fall within the scope of parental responsibility.

The school measures that seemingly have general approval are the several types of special classes, speech training, oral prophylaxis, and posture correction. One dares not venture a prophesy of future trends. Of these approved activities it is evident that each is rich with educational opportunity.

17. The outcomes of health education can to some extent be measured and recorded.

We should set ourselves to the task of seeking the ultimate in measurable outcomes, for much depends upon success in this direction. To that end, the administration should look beyond routine and theoretical accomplishment. It should seriously concern itself with research and statistical recording. Reports and records should be more than devices for checking on a person's whereabouts and doings. They should picture more than a skeleton of facts. In the long run, the accumulated records should tell the story of health education. They should reveal strengths and weaknesses. They should give some tangible basis for a comparison of costs and results. And their worth as supporting evidence in behalf of health education propaganda may be the magic wand we sorely need.

18. The continuous training of teachers in service is an aid to health education.

Interpretive remarks are not necessary. It is sufficient to imply a relationship with administration.

19. The school reflects public opinion.

This is a truism; one that is obscure to the idealist. Workers in public education put it this way, "The school moves only as fast as the public approves, and always the directions are identical." The moral is obvious. We have the ever-present task of sowing and then cultivating favorable public opinion. And we can't stop with the board of education. There must be machinery for conveying just the right news to those whose children we have in our charge. It is most fitting that we give serious attention to this machinery and its functioning. So far we have only played with it under such names as publicity, propaganda, or salesmanship. Whatever the name

it is an administrative chore of high rank, correlated with certain principles already cited such as research, measurement, statistics, coordination, home cooperation, a worthy program, and other health-social-educational objectives.

* * * * *

Health Questions.—High school health questions will be answered in Hagerstown, Maryland, high schools by P. A. Surgeon David C. Elliott, now assigned to cooperative work with the Public Health Department of that city. Doctor Elliott became aware of the keen interest in health subjects among high school students during a tuberculin testing program. To satisfy this desire for accurate information, he has agreed to answer written questions submitted by high school students through the columns of three high school papers. Sealed envelopes containing individual questions will be collected from "home rooms" by a member of the school paper's staff. Doctor Elliott will prepare the replies. Questions and answers will be published, avoiding the use of names.—Bulletin of the National Tuberculosis Association, August 1937, Page 122.

* * * * *

Open Air Classrooms.—The report on "Open Air Classrooms" recently made by a special committee of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association has now been published by the National Tuberculosis Association and is available from National Education Association headquarters in Washington and also through state tuberculosis associations. Dr. J. A. Myers of Minneapolis, chairman of the Tuberculosis Committee of the American Association of School Physicians, represented the Tuberculosis Association on the committee of which Dr. Charles A. Wilson of Hartford, Connecticut, was chairman.

The report deserves wide distribution. The value of the open air classroom is concisely appraised and its special features considered in the light of the needs of all children. With the increased understanding of the tuberculosis problem in children, and the changed point of view on weight as an index of nutrition and health, it is high time that our open air schools and classes were carefully studied and re-evaluated in line with present-day knowledge in the field of preventive medicine.

The published report considers the six following topics: ventilation and heating, feeding, practical health instruction, improved home care, more individual attention, and rest periods.—Bulletin of the National Tuberculosis Association, August, 1937, Page 122.

* * * * *

Girth and Death.—The longer the belt line, the shorter the life line. The greater the degree of over-weight, the greater is the mortality rate. —Statistical Bulletin, Metropolitan Life Insurance Co., Vol. 18, No. 5, May 1937, Page 2 and 3.

MEDICAL SCHOOL INSPECTION

A. M. JOHNSON, M.D., *Health Officer;* HARRY C. HUMMELL, *M.D., Deputy Health Officer, Rochester, N Y.*

Rochester, New York, has a population of 336,527, and is made up of various industries of which the manufacture of Kodaks, optical goods and clothing predominates. It is a city of detached homes with practically no tenements and few multiple homes. The combined school system consists of 57 public schools and 32 parochial schools. From the beginning, the Health Bureau has been in charge of the nursing and medical activities in both the public and parochial schools of the city, and this was brought about in the following manner.

In 1904, Dr. George W. Goler, then Health Officer, conceived the idea that much disease might be prevented and the general health of children improved if it were possible to have the regular attendance of a physician at a given school. Knowing full well the impossibility of obtaining public funds for such an unknown procedure, he induced a private citizen, Colonel Henry Lomb, to underwrite the scheme for six months. Immediately the value was apparent and, at the end of the probationary period, the city administration increased the medical staff of the Health Bureau by six physicians. Thus this work has always been directed by the local public health authorities. The necessity of nursing service to augment the work of the school physician was almost immediately apparent, and as the work has been perfected so the personnel has increased. The impetus for increase, almost without exception, coming from the citizens themselves, until at the present time there are engaged twenty part-time physicians and seventy-two full-time nurses.

For a period, from 1904 to 1921, this work was carried on as follows: Each physician was assigned to a district which contained approximately 5,000 school children and which might mean five schools; perhaps, a high school and two or three elementary schools and a parochial school, in a given district. The decision was reached early to place a nurse only in a school where there was a need, allow her to do intensive work and thus demonstrate the nursing necessity, which would not otherwise have been so apparent had her services been spread thinly among multiple schools. A physical record card was devised, and the school physician attempted a physical examination of a given group of pupils during the school year. While, during this period, great progress was made, it was apparent, after careful study, that too much written data were accumulated and not sufficient remedial measures were being instituted.

In 1921, as a trial, the squad method of inspection (please note it is not called an examination) was begun and it has been the system used since. Each squad is made up of three physicians and six nurses and, when necessary, two lay employees to assist with the weighing and measuring, a nursing supervisor and a deputy health officer. The physicians are attired in white coats, and the nurses in the regulation white uniforms. A schedule is arranged in advance

with the principal of each school. On the appointed day the squad appears at the school, well before opening time, and all paraphernalia is set up and in readiness when school convenes. Usually an assembly room, the gymnasium, or a well-lighted corridor is selected. Pupils arrive in groups, each child carrying his physical record card in the left hand, having already rolled up his sleeve and placed the right index finger upon his vaccination scar on the left arm. Smallpox vaccination is compulsory and all children are known to be vaccinated, but this is done to keep them conscious of vaccination. A nurse, standing in a good light, pushes the hair apart, with a wooden tongue depressor, just above and back of the ear. If pediculosis is present, nits will appear at this location on the shaft of the hair. The pupil then passes his physical record card to the first recorder who is seated at a desk. Then he steps upon a scale, where one employee weighs and measures him and the figures are called to the recorder who, after tabulation, passes the card to the next recorder. The pupil passes to the first physician who quickly observes the posture, general nutrition, cervical glands, thyroid, skin, etc., and who looks into the throat, using a fresh wooden tongue depressor. He gives his findings to the recorder. The pupil then passes into a quiet room where a physician, with the aid of a stethoscope, quickly inspects the heart. The pupil then comes to the eye chart, which is illuminated and of the Snellen type. Each eye is inspected separately, care being used to avoid pressure upon the covered eye. This completes the inspection. Defects are tabulated and entered on the physical record card.

Within a few days, after this medical inspection, a squad of dental hygienists moves into the school. All dental work in Rochester schools is done by the Rochester Dental Dispensary, a gift of the late George Eastman which, since its inception, has been under the direction of Dr. Harvey J. Burkhart. Portable dental chairs are conveyed to the school building, and the teeth of each child are cleaned. All cavities are chartered and the findings are turned over to the school nurse. Thus we have the data, on rather a complete inspection, early in the school year, allowing the school nurses ample time to arrange remedial work through the channels of the family physician and the various clinics.

The city is fortunate in having its hospitals geographically so situated that a hospital clinic is fairly accessible from all sections. A close cooperative effort has always been maintained between the hospitals and the Health Bureau for the early initiation of remedial work for the defects discovered. With the great amount of data, which have been obtained early in the school year, in the hands of the health nurse, the amount of work to be expected at a given hospital clinic can be fairly well estimated and appointments made in advance, and children can be taken in groups to certain clinics on scheduled days. With this clinic work well organized, great time and effort are saved for the physicians in the clinics, and for the health nurses, and it limits the absence of pupils from school. Generally, the hospital clinics have successfully cared for all

cases referred to them, with the exception of refraction cases. To remedy this situation the city has for the past two years entered into a contract with the Monroe County Medical Society to care for such refraction cases as could not be given appointments in the regular hospital clinics.

Various cities stagger the medical work in schools by examining or inspecting a series of groups of children each year and plan to cover the entire population every three years. We did not find this method as effective as the yearly inspection of all children. With yearly inspections we are able to keep in close touch with the pupil and not only discover new defects, but we also have an opportunity to re-check and look for the correction of previously discovered defects.

The rapidity of our method is bound to meet with adverse criticism, but we feel that the personnel engaged in this work soon develops an acuteness of perception which enables them to catch gross defects, and that is all that we claim to accomplish. An average of about five hundred school children may be inspected in a morning by our method.

In 1925, partly as a check upon the method, and partly because of adverse criticism, the following was done. A public school with a capacity of 1,100 pupils was selected. The parents were sent written requests for complete physical examinations which they were asked to sign and return. After many weeks we succeeded in obtaining 479 written consents out of a total registration of 1,100 pupils. From 15 to 30 stripped examinations were done daily by three physicians, assisted by two nurses and two clerks, all of the Health Bureau staff. Blood for Wassermann tests and urine for analysis were collected. A dentist from the Rochester Dental Dispensary made all dental examinations.

With the exception of the information gained from the Wassermann test and urinalysis, practically no more information was assembled than is ordinarily gathered from the annual physical inspection. We found that stripped examinations, if done thoroughly, would consume an enormous amount of time and would require personnel at a cost which would be prohibitive, and in the end the findings would compare favorably with our findings by the squad method. The time necessary for complete examinations would make for delay in beginning the necessary corrective work to remedy the defects found.—Report: Department of Public Safety, Bureau of Health, Rochester, N. Y.

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Health Bulletin.—School physicians who are teaching hygiene or are supervising the teaching hygiene will find extremely valuable the "Health Bulletin for Teachers" and the "Statistical Bulletin" of the Metropolitan Life Insurance Company, 1 Madison Avenue, New York, New York. These will be sent regularly on request.

SCHOOL HEALTH EDUCATORS

**Abstract from the Report of A. P. H. A. Special Committee*

The preliminary report of the sub-committee on the qualifications of school health administrators was published in the American Journal of Public Health, July, 1937. Since reprints may be easily secured from the American Public Health Association, 50 West 50th Street, New York, New York, and because of the length of the report, only the following extracts are quoted.

If we accept the proposition that these 3 groups of studies, (1) Scientific Education, (2) Pedagogy, and (3) Special Education, should be regarded as essential for the preparation of the teacher or supervisor of school health education, it is obvious that the professional education of the school health educator should be done in a university in which the so-called basic health and medical sciences are offered; namely, anatomy, physiology, bacteriology, pathology, and hygiene, and in which a department or school of education is maintained or in other institutions of higher learning where close cooperation exists between these teaching units. In general, the progression to be followed in preparation for a career in school health education may be outlined as follows:

IV. Undergraduate Work

The college work should be on a broad cultural basis. However, if one anticipates and plans his studies for a career in health education, early in college life, the necessary physical and biological sciences may be adequately pursued. At any rate, substantial courses should be completed in physics, chemistry, and biology. If possible, biology should include vertebrate anatomy, physiology, and a general course in bacteriology. General courses in psychology and sociology should be completed.

The senior year or a portion thereof should be devoted to studies, offered in the department or school of education in the university, along the lines of the history, philosophy, psychology, principles and practices of public school education. It is assumed that practice teaching is included. The prescribed or recommended courses which will qualify one for the teacher's certificate or licensure should be completed. In other words, according to this recommended course of study in the college, the student has been educated and trained for a career as a public school teacher with a major in the biological sciences and a minor in the physical sciences.

V. Graduate Work

The admission requirements to the graduate school (Bachelor's degree), should specify the completion of substantial courses in the physical and biological sciences and in pedagogy according to the recommendation made relative to undergradute work. At least 1 year of graduate work leading to the degree of Master of Science in Public Health or School Health Education or an equivalent degree or certificate is recommended. The following graduate program of study is recommended:

Sciences—Those sciences which acquaint one with the structure, functions, and care of the human body.

1. Anatomy—Gross and Microscopic—Embryology.
2. Physiology, including Biological Chemistry.
3. Physiologic Hygiene (Personal Hygiene).
4. Pathology (Bacteriology prescribed for entrance.)
5. Community Hygiene.
6. Public Health Administration.

School Health Program—Organization and administration of comprehensive and constructive school health programs including:

1. Methods and Materials in Health Teaching.
2. Special Health Problems and Needs of the School Child.
3. Healthful School Living.
4. The School's Health Service.

It is recognized that the program of study offered as graduate work will be varied in accordance with the undergraduate education and training of different students. For example, public school health educators are now being recruited from several of the health-medical professions; namely, medicine, dentistry, nursing, nutrition, from physical education, and from public school educators who have majored in the biological and, perhaps, the social sciences. The physician going into school health work will have had satisfactory training in the sciences before he begins this curriculum. He may have had none of the courses which make up pedagogy. Therefore, courses in the history, philosophy, psychology, principles and practices of public school education must be made available to him in this graduate program of study. Likewise, in varying degrees, for the other health sciences' professions. On the other hand, physical educators and schoolmen interested in school health work as careers, ordinarily, will have to devote much of their time and efforts to the study of the medical-health sciences. Thus, it is seen that the graduate program of study will have to be modified or differentiated in order to meet the individual needs of professional students until that time comes when professional education programs of study for school health educators will become generally recognized and established.

VI. Practical Experience

One cannot emphasize too much the importance of supervised practice teaching of health and of directed participation in the "doing" aspects of the school's health program including the activities for healthful school living and those of the health service, in order fully to qualify as a school health educator. Therefore, a tenure of directed practice and experience in a recognized school health program should be included in a professional program of study in school health supervision before the Master's degree is conferred.—John Sundwall, Chairman; Edna A. Gerken, Harold H. Mitchell, James F. Rogers, Clair E. Turner, Anita Laton.

* * * * *

Preventorium in South Africa.— As a result of Christmas Seal sales in the Union of South Africa since 1929, the Christmas Stamp fund has raised enough money, $150,000, to establish the first of a series of preventoria. This preventorium is located at Pietermaritzburg.—Bulletin of the National Tuberculosis Association, June 1937, Page 88.

EDITORIALS

"We are coming to recognize that priceless as is the power to cure disease, power to prevent it is of far more worth to the community."—RUSH RHEES, *President Emeritus, University of Rochester.*

* * * * *

On page 188 of this issue is an abstract from the Report of the American Public Health Association Committee on the Educational Qualifications of Health Educators. This report emphasizes and coordinates the knowledge that many leaders in the field of school health have had for some time; namely, that school health is a special field of medicine and of public health, and that one must prepare himself for work in this field as he would for any other specialty in medicine. It is unfortunate that Schools of Medicine, and even Schools of Public Health offer so little opportunity for study and training in this field to fit young men and women for such special service.

* * * * *

Special attention is invited to the article on Administrative Procedures in Health Education, appearing on page 179 of this issue. Dr. Ireland has presented ideas that in most school systems receive little attention from either teachers or administrators.

Peculiarly needed is the classification (or some similar one) for physical education activities. Such a division of activities, adapted to age, mentality, and physical condition and development, would almost totally eliminate the requests by physicians that certain of their patients be excused from required physical education. Of course, it is correlary of this division that both parents and the medical profession be informed by school administrators that such a classification exists, and exactly what it is and how it is administered.

The classification should be worked out by school physician, physical educator, and superintendent working closely together. Into conferences might well be invited leaders of the Parent-Teacher Association and members of the county medical society.

* * * * *

Equally important is the use of "the educative situations represented by examinations, inspections, tests, conferences", which should be concomitant to the detection of deviations from normal, whether physical, mental, or social. To pile up figures on defects formed and corrections made, as our major effort, is a phase of health examinations which we should have passed. The information gained by physical inspection and health inquiry should be merely the starting point for true health education.

* * * * *

Honor to Dr. Myers.— At the annual meeting of the National Tuberculosis Association at Milwaukee last May, Dr. J. A. Myers of Minneapolis, Minnesota, Chairman of the Tuberculosis Committee of the American Association of School Physicians, was elected President of the National Tuberculosis Association and of the American Academy of Tuberculosis Physicians. Congratulations and best wishes.

ABSTRACTS

Treatment of the Paralysis Resulting from Poliomyelitis.— Indifferent after care of paralyzed extremities in many cases of infantile paralysis is a big factor in the causation of crippling conditions. The prevention lies in orthopedic management as soon as any weakness or paralysis is detected. Absolute rest on a firm mattress supported beneath by boards to prevent sagging is necessary. Prevention of muscle damage by the use of plaster shells, padded boards, and sand bags at the same time placing the damaged muscles in the position of greatest relaxation is indicated. For the lower extremity, slight flexion of hips and knees with 10-15 degrees of abduction at hips and a 90 degree angle between foot and lower leg; for the upper extremity, abduction of upper arm to right angle with body with 30 degrees internal rotation, and forearm in pronation and neutral position in relation to the arm. With paralysis of the intrinsic muscles of the hand, support of wrist, flexion of the phalanges on the metacarpals and keeping the thumb in adduction and opposition will prevent much damage to the hand.

Inspection every few days by putting each joint carefully through a slight range of passive motion is necessary to prevent contractures with fixed deformities. Electrical stimulation of muscles, deep massage and early active motion are destructive and harmful. After deep muscle tenderness has disappeared graded active exercise with the aid of water can be started but there is no hurry. At first, active exercise should be limited to a few minutes a day, and never pushed to the point of fatigue. The brace ambulatory period begins when the patient is allowed out of bed three to six months after the acute attack. All residual paralysis or weakness must be protected by a brace or other support before patient is allowed ambulatory privileges. Reconstructive surgery offers 50-75% hope to cases of residual paralysis that do not involve complete paralysis of the upper extremity or paralysis about one or both hips. —Paul H. Harmon, M.D., Superintendent, Division for Handicapped Children, Department Public Welfare, Illinois, Illinois Health Messenger, August 15, 1937, page 102.—Abstracted by R. W. Weiser, M. D., Public Schools, Kenmore, N. Y.

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Orthopedic Care by the Division for Handicapped Children in the Department of Public Welfare.— In accordance with provisions of the Social Security Act supplying funds to all states on a matching basis, a new division for Physically Handicapped Children was organized in the Department of Public Welfare of the State of Illinois. The Act provides "services for locating crippled children and for providing medical, surgical, corrective, and other services and care, and facilities for diagnosis, hospitalization and after care for children who are crippled, or who are suffering from conditions which lead to crippling." In the acute phases of infantile paralysis, convalescent's serum, free splints, and diagnostic aid is obtained through the Department of Healths' District Supervisors. Survey of the entire State by the

divisions eight specially trained field nurses will be made to find all physically handicapped children and final diagnosis made by an experienced orthopedic surgeon. Free out-patient orthopedic clinics sponsored and supervised by local County Medical Societies with the aid of the communities through their service clubs and fraternal organizations will be set up in those areas not already served. Hospital facilities for orthopedic care will be provided by the state at the Illinois Surgical Institute for Children in Chicago and at other approved general hospitals throughout the state. Braces, and other appliances will be available from the state on a limited basis. The eight district field nurses of the new division will cooperate closely with all other nursing, public health, and welfare activities in the state, and will handle the orthopedic phases of nursing in the after care of patients with infantile paralysis. Under special projects, will be educational activities to acquaint local groups of the services being offered to the crippled children of the state, as well as cooperative educational projects by nurse-physiotherapists to develop muscle coordination and to reduce muscle tension in all spastic paralysis cases.—P. H. Harmon, M.D., Illinois Health Messenger, August 15, 1937, Page 106—Abstracted by R. W. Weiser, M.D.

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Measles and Whooping Cough.*—What should our city do about measles and whooping cough? This is a question for every public health worker. When we review the deaths and the handicaps traceable to these diseases we may question our policies. We search eagerly through statistical reports for convincing evidence to support health department practices for the control of these diseases, but we find no such statistical evidence. This report under review also fails to show a relationship between either morbidity or death rates and administrative procedures. We are disappointed but nevertheless we are encouraged to have the way pointed for future studies. This report is an outstanding achievement of the Committee on Administrative Practice. It is another splendid contribution of the author, Haven Emerson, M.D. The analysis and constructive suggestions for a better use of existing knowledge may well become a great stimulus to developing further data indispensable for determining the actual value of Health Department procedures intended to reduce the damage from these diseases.

The many varieties of control procedures found in practice are obviously an indication of the lack of agreement as to what is worthwhile. With the relaxing in recent years of the more restricting and repressive measures for communicable disease control, there has come a tendency to neglect these diseases and to fail to carry out such educational and administrative measures as might protect the younger children from serious complications. The tentative suggestions from this Committee provide that authoritative opinion which has long been needed to avoid a further tendency toward a laissez faire policy. The suggestions for estimating the completeness of reporting over a ten year period, for computing case incidence by age groups, fatality rates and for

verification of diagnosis on request of a physician or when suspected by a non-medical person are some of the measures which should contribute to greater uniformity and continuity for future analysis of the experience of cities.

The emphasis upon prompt visits on cases, for instruction of parents whenever there is an exposed susceptible pre-school age child in the family and the value of subsequent visits for patients under five years of age, proposes a serious problem of adequacy of medical care. The follow-up of such cases to make sure that convalescence is established without pulmonary or other complications would no doubt discover many cases of medical neglect and challenge the community medical facilities. Also, to obtain after care medical examinations in the interest of prevention and nutritional upbuilding of these cases is an appropriate public health measure that should have consideration in these days when a wider distribution of medical care is being urged from many sources. Likewise, bedside nursing by visiting nurses experienced and supervised in such work is needed, particularly if pneumonia or surgical conditions develop or there is serious interference with the child's nutrition. In fact, we should not overlook the recommendation that such bedside nursing should be actively encouraged by the Health Department.

For the School Health Administrator we are impressed by the educational implications of this Report, and the contribution that the schools can make to more complete reporting and protection of the younger children by cooperation with the Health Department, even though we have no assurance of any drop in the prevalence of these diseases.—*Report[2] Prepared for the Sub-Committee on Evaluation of Administrative Practices, Committee on Administrative Practice, American Public Health Association, by Haven Emerson, M.D.[1] —Reviewed by Harold H. Mitchell, M.D.

[1]Supplement to American Journal of Public Health, Vol. 27, No. 6, June, 1937.
[2]Incidence, Fatality, and Death Rates in Thirty-two Cities of the United States, in Relation to Administrative Procedures Intended for Their Control—1924-1933.

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The Physician as Educator.—That the modern physician has something very definite to contribute to education is an idea that has now invaded both medical and educational circles. This has come about because the modern physician occupies a very unique and increasingly important place in society. Our class "A" medical schools turn out men who have been carefully trained in those special fields of knowledge which deal with the structure, the function and the behavior of human beings. In fact, medicine covers some part of nearly all the biological sciences. No type of education, therefore, has broader foundations than medicine and we know of no discipline that gives the same broad outlook, the same attitude toward life, the same mental stance.

At the risk of being tiresome, let us repeat that the physician as a highly specialized biologist proposes to take care of, and guide and direct the most intricate, the most complicated and in many respects the most delicately sensitive of all living creatures. To be a good physician and to keep abreast of all advances in modern medicine is no small achievement. Indeed, no physician

can fulfill successfully his mission in the present-day world unless he is fairly well-grounded in psychology, sociology, criminology and even economics and government. He must know something about all types of human institutions and be familiar with all forms of human behavior, habits and customs. In brief, nothing human must be foreign to him. This is doubly true for the public health physician and health officer. In this competitive, struggling world, individual designs for living must be based necessarily on a thorough knowledge of life and life processes, if the youth of the land are to be given the best possible chance for survival and the best possible chance for the achievement of useful, happy lives.

Who but the physician is equipped to impart effectively knowledge of life? Preventive measures are rapidly becoming the heart and soul of all medical practice and all health officers realize that health education is rapidly becoming the heart and soul of preventive medicine. The public cannot be expected to cooperate in the promotion of health and the prevention of disease unless they thoroughly understand the rules of the game.

All types of education—in the home, in the kindergarten, in the school, in the reformatory, and in the clinic—have exactly the same purpose. This purpose may be summarized in two words, "healthful living."

The primary goal of the teacher and educator is mental health—keeping students healthy at the psychic level, while the primary goal of the physician, at least in past decades, has been physical health—keeping patients well at the physical level.

But thanks to modern psychiatry and psychology, we know now that the old doctrine of the dualism of mind and body is a myth. Mind and body are one and inseparable. Whatever affects the mind affects also the body and whatever affects the body affects the mind. Thus the aims of the teacher and the aims of the physician must merge.

As it stands now in education, the medical group has the information and the educational group has the teaching technic, but it is extremely rare to find the same qualifications in the same person. Should not the physician who has the information develop his own technic? Is it not true that one has a thorough grasp of any subject only when he can effectively tell it to others?—*The Health Officer,* September 1937, Page 143. U. S. Public Health Service.

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Making a Healthy Tooth.—"Progress in Nutrition" by Jacob E. Klein, M. D. in the Journal of American Dental Association, September 1936 presents a boiled down statement of modern concept of the tooth and its deterioration as follows:

"A theoretical biochemical equation for the formation of a healthy tooth might read as follows: good hereditary stock plus good prenatal conditions plus proper infant feeding plus normal hygienic conditions plus normal development during childhood, with a minimum of contagious diseases, plus normal endocrine function plus unknown factors equals a normal healthy tooth. Abnormalty in one or several of these factors form a biochemical equation

that spells dental caries. What I desire to convey is the fact that dental caries is a symptom and not a disease. For this reason I feel that no one will find the cause of caries, but various causes will be found under caries conditions in different geographic localities among different peoples."—*Contact,* Massachusetts Dept. Public Health, July 1937. Page 6.

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Mottled Enamel.—A study recently conducted by the State Department of Public Health shows that in about 100 communities of Illinois, including such population centers as Galesburg, Joliet, Monmouth, Riverside, Elmhurst, Maywood and Bushnell, children are exposed to the danger of a dental defect known as mottled enamel because of fluorine in the drinking water supply. This disease may manifest itself in a permanent, incurable, strikingly noticeable discoloration of the teeth. More frequently it is characterized by the presence of dull, chalky-white or paper-white patches distributed irregularly over the surface of the teeth.

There is no known method of curing the disease and the only known means of prevention is to drink water which contains less than one-millionth part of fluorine. This chemical substance causes mottled enamel and the danger point is reached when water contains one part of fluorine to one million parts of water.

It has been known for several years that the disease exists in certain regions of Illinois. From Minonk in 1928, a local dentist took a bus load of children with mottled enamel to a dental society meeting at Chicago, hoping to secure advice concerning an effective method of treatment. Cases have come to light from time to time since that year.

Lately, the State Department of Public Health undertook the task of making chemical analyses of samples from all the public water supplies of the state in order to determine the fluorine content of each. About 1,000 samples have been tested. A flourine content of more than 0.9 parts per million was found in the deep well public water supplies of about 100 communities with an aggregate population of 330,000. This area stretches across the state in a belt about 100 miles in width which runs at a 45 degree angle to the compass from Henderson County on the Mississippi to Lake Michigan. In a relatively small district around the panhandle of Ford County, the fluorine content of public water supplies ranges from 3 to 4 parts per million of water and here mottled enamel is more prevalent than elsewhere in Illinois. As a rule, the more highly mineralized waters contain the most fluorine.

A summary of the results of the study indicates that deep wells which draw water from the St. Peter sandstone or lower strata in two rather definitely limited areas are likely to produce excessive amounts of fluorine. The larger of these two regions begins on the western side of Iroquois County and extends fan-like to the Mississippi, embracing practically all of 15 counties lyng mostly to the north and west of the Illinois Rver. The other area centers in Cook County, including all contiguous counties and two or three more.

Fluorine in significant amounts was found outside of the belt only at New Baden in Clinton County, at Catlin in Vermilion and Oregon in Ogle County.

So far as available knowledge indicates, the solution of the mottled enamel problem is to obtain drinking water free from fluorine. Reports on the chemical tests of the water supply in any community may be had from the State Department of Public Health. Information is available also on the water-bearing formations, so that wells can be sunk into strata which yield no significant amounts of fluorine.—*Illinois Health Messenger,* July 1, 1937, Page 79.

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Dental Studies.— Several papers read in the scientific sessions at the 79th annual meeting in the American Dental Association showed the increasing emphasis on the preventive phase of dental health. Dr. Earl Swinehart of Baltimore presented his findings on a five year study of 38 boys and girls from two and one-half to 15 years of age who had the habit of thumbsucking which caused crooked teeth, stunted growth, unsound sleep, loss of appetite and inferiority complex. He pointed out that in considering these habits as passing phases of childhood whose effects, if any, are small and transitory, we have been making a serious error. In infancy, the bones are plastic, and can be easily molded by mechanical means, while in adulthood we have a physically and mentally handicapped individual who can be aided only with much difficulty.

New hope for the elimination of pain in tooth filling was given when Dr. Harold A. Osserman of New York announced two new formulas for a dental anesthetic—one a liquid and the other a paste. The liquid can be made up by the dentist. The paste, which is more effective and easier to manipulate is patented and contains a new drug. Before applying the anesthetic, he employs a dehydrating and cleansing fluid. In 361 carefully checked cases, Osserman found the drug entirely successful in 83 per cent, partially successful in 14 per cent, and in only 3 per cent of the cases did it fail. In commenting on Osserman's paper, Samuel M. Gordon, Secretary of the Council on Dental Therapeutics, made a plea for skepticism — a plea which seemed superfluous in view of the recent experience the dental profession gained from the widely publicized Hartmann's solution.—*The Health Officer,* September 1937, Page 150-151.

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Heart Disease.— Development and conservation of the damaged heart depends on the proper utilization of rest and exercise. All rest and no play makes Jack a dull boy and all play and no rest makes Jack a dead boy. It is evident to all that the decreased demands of metabolism which come with sleep permit a reduction of blood pressure and heart rate. This reduces the work of the heart to a great degree. These children should have, therefore, ten to twelve hours of sleep. How much and what type of rest they need in addition is of course an individual matter. It is certainly sure, however, that they should lie down one-half to one hour after meals when demands on the

heart are great. It has not been possible to follow this course with the mild cases in our school because of the play period following lunch. Practically all do lie down through an hour in the forenoon and an hour in the afternoon. This, in some cases, may not be necessary, but in many instances the practice compensates in a measure for lack of home cooperation. Frequent short rest intervals are probably better than few long ones for pupils with marked involvement, and this program is carried out in our school in some cases.

The problem of exercise is more difficult to deal with. In my experience, there have been no instances in which I felt the child has been harmed by over-rest. Many, however, have suffered from overdoing. Judicious exercise is beneficial in many of the cases, but over exertion is a major cause of heart fatigue which becomes chronic and leads to further damage of the heart.

As in the matter of rest so in that of exercise, the amount and type is an individual affair. Certain rules apply, however, to all pupils in this class. They should be transported to and from school. Stair climbing, running, games requiring physical competition or endurance, and lengthy drills, should be discouraged. Walking on the level for short distances is always safe. It has been found that prohibitions are not effective. Exercise and play demanding too great physical strain must be replaced by other activities equally interesting, yet lacking the element of danger.

The criterion by which one must be guided is simple and easy to apply, but personal observation and study of each individual is essential. The smallest stress leading to shortness of breath, heart consciousness, or fatigue greater than that which a normal child would experience is a measure of the heart's ability. Such an effort should mark the upper limit to which a child may be allowed to extend himself. Long continued or frequently repeated exercise of this degree should be avoided.

Let us turn for an instant to some of the specific types of exercise and play which may be adaptable to our needs. In doing so I wish to state that what I have to say is in a considerable measure based on the study and experience of members of the department of physical education and the classroom teachers in the Eastern Avenue School. Through their personal study of each child some valuable pioneering has been done on this problem.

First let me call your attention to a group of exercises which all children with cardiac disability should have. I refer to postual exercises, properly graded to fit individual needs and energy, from the simple recumbent to the more advanced standing procedures. If you do not already know them, any physical instructor can inform you. It is better still to take a course yourself. Most teachers need them and it is rather difficult to teach properly a maneuver one can not do. Because of poor muscle tone and fatigue, these children often present marked postual defects. They produce flattening of the chest, pushing down of the diaphragm and the abdominal contents, with consequent crowding of the heart and loss of negative pressure in the chest exerted by diaphragmatic motion—a very important force in the return of

blood to the heart. Remarkable beneficial results in the reduction of heart strain can be attained by correction of posture in these cases.

Because the number of children of like age with limited physical capability is not sufficient in many schools, it is sometimes necessary to resort to games which can be played by one or two individuals, such as card games, mental games, *Checkers, Jacks, Marbles,* and refereeing or score keeping for the games of others. Artistic or occupational pursuits such as drawing, weaving, and typing often have a distinct appeal.

Group games are, of course, more interesting and desirable for children. Examples are guessing games, such as *Find the Ring,* and *Charades.* Short drills with or without singing, such as *London Bridge* and *Farmer in the Dell* are good fun, and mild exercise without competition. The more physically able groups may participate for short periods in many of the games played by normal children in which physical endurance and competition are not necessary. Examples of such games are *Statues, Blind Man's Bluff,* walking relays and marching.

Teachers are in a key position. They can do much to further the education and secure the cooperation of those concerned with these handicapped children. Unless they are protected and developed they will continue to be a sick and unhappy lot, and in many instances will be a burden to society as long as they live. They are capable and deserving, and teachers more than any other group can help to give them a fuller life.—"Conservation and Development of Children with Heart Disease," H. C. Robinson, M. D., *Journal of Exceptional Children,* February, 1937, p. 81-82.

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Impetigo.—*To the Editor:*—I am in charge of the medical inspection of municipal schools. When a child comes to school with one or two small areas of impetigo, it has been my custom to advise the parent to take the child to the family physician at once. Parents usually resent exclusion for these small areas, and ask whether the child may come to school if the spots are covered with a dressing of gauze fastened with adhesive tape. I have permitted them to come into school if the impetigo is completely covered in this way. I always advise them to find out from their physician whether he wishes it covered, and to follow his advice. If he allows them to cover it, I allow them to come to school, if it is not spreading. One of our physicians does use the collodion with metaphen, and these children are admitted, of course. I would appreciate having an opinion as to this practice, as to the safety of other children. Since absence is costly to the city, we are anxious to have them in school if they are satisfactorily taken care of by this method. I would rather that my question be not published. If it is please omit name and city.

M. D., New York

Answer.—Newman in 1935 published a paper in which he reports a research on the effect of exclusion from school on the incidence of impetigo.

He chose a section of Southampton, England, fairly well isolated from other parts of the city. With the help of local physicians and workers in the schools and school clinics he plotted curves for the occurrence of impetigo during 1932 and 1933 and found that they corresponded closely. The high point was near the first of the year, slowly descending to the twenty-fifth and thirty-first weeks, then rising to the maximum. This lack of correspondence with school attendance he accepts as an argument against the influence of such attendance furthering contagion. One school did not exclude impetigo and had no more cases than the average. In another, a period of seventeen weeks admission of impetigo cases during the prevalence of an epidemic did not increase the number of cases over the average for other schools.

Newman concludes that home contacts are more important than those in school and that elimination of the common drinking cup and common lavatory in the school would eliminate the most important contacts there.

The method of cleansing impetigo must be painless or the cases will be hidden. The dressing must be simple and not likely to be dislodged. Control is to be sought for by the encouragement of cleanliness, the elimination of common utensils in the schools, and the effective first aid treatment of minor wounds. This seems to be a common sense view of the question. If children are admitted freely at school, their cleanliness can be controlled better and the continuance of treatment assured.

Impetigo intractable to the ordinary treatment with ammoniated mercury ointment has been managed simply by covering each spot securely with adhesive tape. In his experience the result has been wholly satisfactory. This treatment serves to protect the child against self inoculation as well as to protect other children. In spite of its breaking the first rule of surgery in the treatment of infection, that is, to encourage free drainage, it has not resulted in deeper involvement but in a prompt suppression of the infection. The skin in the circinate form of impetigo acquires resistance at the center of the lesion and heals as the infection involves fresh skin, spreading at the periphery. The occlusive tape treatment apparently encourages the acquisition of innumity and prevents spreading. Where ulceration is present, i. e., ecthyma, one would hesitate to recommend the same treatment, though it may be effective here as well.—*The Journal*, A. M. A., April 24, 1937, p. 1450.

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The Health Examination and Its Follow-up.*—The objectives of the school health service were defined as:

1. Control of communicable disease.

2. Detection of physical defects and their correction, which includes any special adjustment of school routine to accommodate children with various handicaps and the classification of children for physical education activities.

3. Serving as a basis of health education. It was pointed out that little or no reduction in the incidence of communicable disease had resulted from the

health service programs now in existence in the schools, excepting for contagious skin disease and such immunization as has been done in the schools, that the disagreements among physicians concerning the presence or absence of defects in the same children and the failure to include an adequate history of the child, limit the accomplishments of the health examination both as an instrument to detect physical handicaps and as a basis of education.

The procedures to be followed in carrying on a health service program and those responsible for each procedure were outlined as:

1. Screening of children in need of medical attention through continuous observations of health disorders and of the behavior of the child by all those who come in contact with the child. The classroom teacher and the physical educator both play an important part in this activity. The nurse and the dental hygienist supplement the work of the teachers in the selection of children requiring medical and dental service.

2. Following the screening of children needing attention, it is the function of the physician to diagnose the condition and *prescribe what should be done about it.* This prescription is not the usual medical prescription. Instead it informs the parent what steps to take to alleviate the condition or it indicates what adjustment in school regime should be made.

3. Responsibility for the correction of any handicap rests on the parent. However, the doctor, the nurse, the teacher, physical educator, and principal can all play a part in the parent education necessary to produce action.

4. Cooperation and coordination of the activities of all those who should be interested in the improvement of the health of the child is essential to any successful program. This coordination can be effected through health councils including representatives both of all the educational personnel and the health organizations of the community. Without a carefully planned method of cooperative work very little toward the improvement of the health of the school child will result.—Summarized by Harold H. Mitchell, M.D.

*Summary of a Round Table Discussion held at the Annual Meeting of the American Physical Education Association, New York City, April 22, 1937.

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Fatigue Among Teachers.— The symptom of fatigue is a common one among teachers. Some are fatigued throughout the entire year, although there seems to be a definite increase in this complaint in the spring. It cannot be said to originate from physical effort, for there is very little of this involved in teaching. It is a problem in mental health in that it has its origins at the "meaning level" of teacher functioning. It is a result of psychological stress and strain.

The fatigued teacher not only suffers herself, but her pupils also suffer in their mental health. Fatigue brings on or promotes irritability and anger outbursts. It decreases the amount of effort the teacher will spend on lesson preparation. It decreases the teacher's interests in her work, and consequently the interest of her pupils. It diminishes the patience of the teacher for the pupils' shortcomings, and thus promotes ill will or the attitude of rejection

between pupil and teacher. A teacher suffering from chronic fatigue will be more apt to subject pupils to unjust treatment. This feeling of injustice from one of the first representatives of authority contributes to disrespect and resentment of other authorities, such as law, government, and the church. —*As The Psychiatrist Sees The Teacher,* S. Alan Challman, M. D., Understanding The Child, June 1937, Page 19.

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Swimming and the Ears.—Healthy ears need not be above water because their outer canals are lined by skin, and water in moderation will not injure skin. It will, however, swell up any fibrous or waxy material in the external ear canals and produce pressure and temporary deafness. It may infect the middle ear if there is a hole in the eardrum. Tightly fitting cotton ear plug saturated with vaseline will prevent water from entering the ear, but such a plug will also prevent much sound from entering the ear. Therefore, do not use it if you are in a place where you need all your hearing to protect you from harm.

All noses contain bacteria and there are many diseased noses which harbor them in large numbers, so that those who do the snuffling and nose blowing in the water are apt to be the ones who suffer most. Anyone with an infection of the ears or nose or of any part of the body, is a potential source of danger to self and to others. All such should be prohibited from bathing near other people. Swimming pools are often little better than septic tanks because of failure to prohibit bathing by those with nose, throat, ear, and other infections.—Hearing News, American Society for the Hard of Hearing, 5:8, 1 August 1937. The Health Officer, September 1937, Page 148.

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The Cross-eyed Child.—The problem of the cross-eyed child requires patience, knowledge, tact, and sympathy for its solution. The cosmetic disfigurement is a serious handicap in making a normal adjustment to life. The psychological effects are bad and require much tact, sympathy and understanding if they are to be handled well and with a minimum of injury to the child. The restoration of function is an important part in the treatment. The ideal treatment and the safe way are to place the child in the hands of a competent eye physician who alone has all the accepted methods of treatment at his disposal, who can use them to the fullest advantage and who, if an operation becomes necessary, can operate at the time most favorable for obtaining a perfect result. —*The Problem of the Cross-Eyed Child,* Le Grand H. Hardy, M. D., The Sight-Saving Review, June 1937, Page 101.

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Our Objectives.—Finally, our organization would like to correct and clear the confused thinking in some channels regarding physical education and health. We believe that physical education involves only to a small degree (let us say five per cent) the health of the child; and that on the other hand, a health program and health education pertains only in a small way to physical

education (again we might arbitrarily use the figures five per cent). Each has a definite place in the school program; each contributes to the improvement of the life of the school child; but one is not the other. They overlap, yes, but only at the edges. An individual trained in physical education is no more qualified to supervise a comprehensive health program than a school physician or health educator is to direct a class in calisthenics.—Bulletin of the Michigan School Health Association, June, 1937, Page 6.

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Trailers.—Senior Surgeon R. R. Spencer named automobile trailers "the health officer's new problem child" in an address before the Rocky Mountain Medical Conference at Denver, July 19th-21st. At Palo Alto, Senior Surgeon L. L. Williams warned the California Anti-Mosquito Conference that malaria lurks in trailer camps where proper sanitation is not observed. In Seattle, trailer-travellers protested a local ordinance requiring certain sanitary facilities in each "home-on-wheels." Maryland pondered the problem of sanitary supervision and taxation of trailers. Colorado reported 3,500 trailers in the state this June—a 40 per cent increase over the number in June, 1936. The trailer industry estimated 250,000 trailers on the road last season, and calculated a production of some 400,000 units this year. But no one has yet solved the central sanitary problem of the trailer.—The Health Officer, September 1937, Page 187.

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N. O. P. H. N. Forms For Reporting School Health Service.—The May, 1937, issue of *Public Health Nursing* includes an article which will be of particular interest to those responsible for statistical reports of the school health service. A form is presented for the monthly and annual statistical report of this service. Prior to publication the form was submitted to the A. P. H. A. Subcommittee on Manual of Practice, since it is not limited to public health nursing service, but includes items relative to medical and dental services as well.

Comments and suggestions will be welcomed by the Education Committee of the N. O. P. H. N. School Nursing Section which prepared the form. —American Journal of Public Health, August 1937, Page 859.

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College Honor Men Long-Lived.—The material on which this study was based was the subsequent life history of 38,269 men graduated from eight Eastern colleges in the classes of 1870 to 1905. Of this number, 6,500 were "honor men." Two-thirds of the total graduates came from Harvard, Yale, and Cornell, the remainder were from Amherst, Dartmouth, Wesleyan, and Williams. The data on athletes were drawn from the record of about 5,000 graduates of the eight Eastern colleges, together with some from Tulane University and Massachusetts Agricultural College. The most recent graduates included in the study had been at least 20 years under observation; members of the older classes for a much longer period. The period of observa-

Expectation of Life in Years

Age	College Men			"American Men" (1900-1915)*	United States 27 Registration States (1919-1920)†	New Zealand (1921-1922)‡
	Graduates	Athletes	Honor Men			
22	45.71	45.56	47.73	44.29	43.35	46.91
27	41.68	41.41	43.61	40.18	39.45	42.57
32	37.59	37.25	39.48	36.03	35.62	38.27
37	33.51	33.09	35.30	31.83	31.83	34.05
42	29.44	28.92	31.07	27.66	28.02	29.92
47	25.37	24.80	26.85	23.62	24.23	25.88
52	21.43	20.85	22.79	19.79	20.53	21.95
57	17.78	17.34	19.03	16.25	17.06	18.17
62	14.48	14.09	15.56	13.06	13.85	14.68
67	11.47	11.06	12.36	10.28	10.96	11.58
72	8.81	8.41	9.50	7.91	8.49	8.87
77	6.52	6.15	7.06	5.96	6.43	6.55
82	4.56	4.24	4.98	4.41	4.82	4.58
87	3.01	2.77	3.30	3.21	3.59	3.02
92	1.92	1.75	2.11	2.30	2.55	1.92

*Insured lives United States and Canada.
†White males.
‡Males.

tion extended to the middle of 1925 and, in this period, 9,640 deaths took place among the graduates.

A study of the table presented herewith reveals among others the following facts: At the age of 22 years, which is the base from which this table starts, the group of "athletes" had an expectation of life of 45.56 years, just a trifle less than the general group of "graduates," with an expectation of 45.71 years. A distinctly better record is made by the "honor men," who surpass the general average by just over two years, with a score of 47.73 for their expectation of life. This last figure surpasses the highest mark made in any national life table for males; the table for New Zealand, 1921-1922, which holds the record for longevity, shows an expectation of 46.91 for males at age 22, almost a year less than the "honor men." These latter make, indeed, an excellent showing. Is this because mental and physical fitness tend to go together? Or is it because it is difficult for a man to excel in scholarship unless he is in good physical condition? Probably both these causes contribute in bringing about the observed effect. As regards the athletes, their record possibly may come as a surprise to some. So much has been said of the beneficial effects of physical exercise, that one would perhaps have expected these men to break records in longevity, as they do in their particular field. In point of fact, they did not even come up to the general average for all graduates, including honor men, although there must necessarily be some degree of selection, students of relatively feeble constitution being from the very nature of things excluded from this athletic group. In spite of this, the entire group of athletes fell below the average. A favorable indication appears when only those athletes who graduated in later years are considered separately. Their mortality is

distinctly lower than that of all graduates and slightly lower even than that of honor men in the classes of 1900 to 1905. *This improvement is, no doubt, due to the introduction of medical examination and control of the athletes**, which has become standard practice in recent years.—Reprint from "The Statistical Bulletin," Metropolitan Life Insurance Company, August 1932. **Italicizing by Editor.*

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Rural School Health Program.—Each rural community must work out its own way of joining forces for improving the health of school children. Adequate health service, information on home conditions which will throw light on school problems, help in selecting sound health literature, help in locating health problems that need attention, information on health services available in the community, in-service training of teachers, and stimulation for continued activity are forms of assistance from health agencies which rural public schools both welcome and need. The schools can best contribute to child health by focusing their attention on health activities which will aid the growth of students both as individuals and as members of the community. This might take the form of studies of community relationships, sanitation, home arrangement, rural electrification, and safety.

There are numerous ways in which the school may focus community attention on its health problems. One method in particular which proved very effective in Cattaraugus County was the setting up at a County Fair of an exhibit of a model rural school-room to show good lighting.

Undoubtedly, the school's most important function in the promotion of community health program is to provide opportunities for, and encouragement of, healthful living throughout the school day. Whether it can bring about any appreciable changes in home conditions thereby depends largely on intelligent teacher leadership.—Function of the School in the Rural Health Program. By Ruth E. Grout. A. J. P. H. XXVII. (June, 1937) 583-587.—Abstracted by Earl E. Kleinschmidt, M.D.

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REVIEWS

The Principles and Practice of Public Health Dentistry.—*By J. A. Salzmann, D.D.S., The Stratford Co., Boston, Mass.*, pp. 584, price $4.00

The Foreword, prepared by Alfred Walker, DD.S., states the problem excellently by quoting from Health Dentistry for the Community "Dental disease is a health problem, involving as it does almost the entire population. Dental disease never repairs itself, and seldom if ever ceases to increase without operative intervention. Until further research discovers effective means of prevention, a complete health service must include a complete dental service. —Universal dental care for children, beginning at the age of two, is the only present possible solution."

The text traces in Part I the evolution of dentistry from earliest recorded history to the present time. Part II concerns itself with the organization of

Dentistry and Public Health, placing special emphasis on health education as related to teeth preservation. Part III expounds the Role of Official and Unofficial Public Health Agencies in Dentistry, discussing the place of federal agencies, state Health Departments, local agencies, and the activities of unofficial agencies such as voluntary health agencies, endowed foundations, and the like.

Part IV discusses the Dental Public Health Program, devoting special chapters to the dental health program for children, dental clinics for children, and dental health education.

This is an informative and valuable text, especially for those having to do with the administration or practice of health for children.

CHARLES H. KEENE, M.D.

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Baby Epicure: Appetizing Dishes for Children and Invalids.—*By Elena Gildersleeve, E. P. Dutton & Co., Inc., New York* 1937. 141 pp., price $1.75.

This text is a collection of recipes for the preparation of food for the groups indicated in the title. They are grouped by types—as Soups, Fish, Eggs, Meats, Vegetables, etc. Scattered among the recipes are brief suggestions that are a guide to the person responsible for food preparation

Prepared with these special groups in mind, and under the guidance of pediatricians, this is more than "just another cookbook."

CHARLES H. KEENE, M.D.

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Deceased.—Miner Raymond Kendall, M. D., died July 14, 1937. Dr. Kendall was a graduate of Bucknell College, attended the Department of Medicine of the University of Pennsylvania, and graduated from the School of Medicine, Western Reserve University in 1914. A specialist in diseases of the nose, throat, and ear, he was visiting otologist to the Cleveland Public Schools.

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Health Radio Program.— The American Medical Association and the National Broadcasting Company present each week over the Red network a program of dramatized health messages intended to furnish graphic supplementary material for health teaching in junior and senior high schools.

The program is presented each Wednesday from 2:00 to 2:30 P. M., E. S. T. The following on "Personal Health" is the program for the four weeks beginning October 13.

October 13—Learning About Health; introductory, explanatory.

October 20—Growing for Strength and Beauty; favorable and unfavorable factors in growth and the maintenance of normal weight.

October 27—Seeing and Hearing Well; hearing and vision; how to conserve these; how to recognize deviations; how to prevent loss.

November 3—Striving for Better Bodies: so-called physical defects; their recognition; what can be done about them.

Dentists and Physicians.—"Two professions, formerly separated," said Dr. Goodrich, "have found a common basis for understanding and mutual appreciation. This changed attitude has progressed due to the efforts of far-seeing leaders in both groups who have sounded the altruistic note of the welfare of the people. Increase in understanding of diet in relation to dental conditions, the discovery of the effects of vitamin values upon the entire body, and the expanding conception of the importance of focal infection have been patent influences."—Dr. Charles H. Goodrich, President, Medical Society of the State of New York.

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Appointments.—Melvin J. Nydahl, M.D., has been appointed Director of Hygiene and Health Education for the public schools of Minneapolis, Minnesota, succeeding F. E. Harrington, M. D., resigned.

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Public Health Dentists Organize.—During the annual session of the American Dental Association in Atlantic City, a group of dentists specializing in public health got together and perfected a temporary organization of public health dentists. The matter of affiliation with some permanent organization was discussed and generally favored but final action on the matter was deferred until a later date. This is a step in the right direction since there are many special problems confronting dentists in public health work that can more efficiently be perfected with the benefits of group consideration.—The Health Officer, September, 1937, Page 166.

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Health Poster Contest.— More than 3,500 schools in South Dakota have taken part in the South Dakota Public Health Association's health poster contest, representing 45 counties of the state.—The Journal Lancet, June 1937, Page 285.

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